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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,569	11/12/2003	Iqbal Ahmed	5003073-034US1	6659
29737	7590	07/27/2005	EXAMINER	
SMITH MOORE LLP P.O. BOX 21927 GREENSBORO, NC 27420			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,569	AHMED ET AL.	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
 - 4a) Of the above claim(s) 20-28 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-28 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04-14-04;06-16-05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, drawn to a coated superabsorbent polymer, classified in class 524, subclass 436.
 - II. Claims 20-28, drawn to a method of preparing a coated superabsorbent polymer, classified in class 523, subclass 200.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by another materially different process since different reaction and drying temperatures may be used to make the same product. Furthermore, the same product can be made by anionic polymerization rather than free radical polymerization.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Philip P. McCann on July 19, 2005, a provisional election was made with traverse to prosecute the invention of group I, claims 1-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-28 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1 and 4-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Sun *et al.* (U.S. 6,514,615).

Sun *et al.* discloses a superabsorbent particle that is coated (col. 12, line 7). The superabsorbent particles of the invention have a free water absorption property of less than 3 g H₂O/g polymer/6 sec (claim 1). This would correspond to a free water absorption property of less than 7.5 g H₂O /g polymer/15 sec, assuming a linear correlation. To corroborate this notion, claim 2 indicates that the superabsorbent material exhibits a free water absorption property of less than 7 g H₂O /g polymer/15 sec. The centrifuge retention capacity is greater than 28 g saline/g polymer (claim 3), and the absorbency under load property at 0.9 psi is greater than 13 g saline/g polymer (claim 4). The subject matter of the claims is anticipated since the ranges of properties disclosed in Sun *et al.* contain and/or encompass the values set forth in the instant claims.

12. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Cook *et al.* (U.S. 6,562,743).

Cook *et al.* teaches a process of improving core permeability of superabsorbent particles by coating the surface of said particles with a polyvalent ion salt (col. 10, lines 20-25). A variety of polyvalent metal salts may be used; the polyvalent metal is calcium, aluminum, and iron (col. 4, lines 57-61), and the corresponding anions include halides and sulfates (col. 5, line 1). Preferred are aluminum chloride and aluminum sulfate (col. 5, line 37). Clearly, Cook *et al.* teaches the coated polymer particulate described in instant claims 1-3, however, the reference is

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silent with respect to the water absorption/retention properties recited in claims 1 and 4-9. However, in view of the fact that the material of the prior art is essentially the same as that recited in the instant claims, a reasonable basis exists to believe that the coated superabsorbent materials of Cook *et al.* exhibit essentially the same properties.[†] Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02.

13. Claims 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook *et al.* in view of Phan *et al.* (U.S. 5,338,766).

The discussion of the disclosures of the prior art from the previous paragraph of this office action is incorporated here by reference. Cooke *et al.* cites tradenames for useful superabsorbent particles that may be used in the invention. The composition of these materials is not disclosed. However, the inventors also cite references for the preparation of superabsorbent particles which appear to be applicable to the invention.[‡] One reference is Phan *et al.* which discloses superabsorbent particles made from ethylenically unsaturated acids (col. 7, lines 6-18) with less than about 5 % of crosslinking (col. 8, lines 5-8) and at least 25 mole % of neutralized acid groups (col. 7, lines 37-41). One having ordinary skill in the art would have found it obvious to coat the superabsorbent particles of Phan *et al.* with polyvalent ion salts as described in Cooke *et al.* and thereby arrive at the subject matter of the instant claims. The combination is obvious because Phan *et al.* discloses a species of superabsorbent polymer, and the invention of Cooke *et al.* is applicable to generic superabsorbent polymer. As such, the skilled artisan would have expected all species within the genus of superabsorbent polymer to produce a useful product having improved core permeability.

[†] Products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990).

[‡] The patents are cited, but there is no recitation that subject matter of the patents are "incorporated by reference."

Cook *et al.* is silent with respect to the water absorption/retention properties recited in claims. However, in view of the fact that the material of the prior art is essentially the same as that recited in the instant claims, a reasonable basis exists to believe that the coated superabsorbent materials of Cook *et al.* exhibit essentially the same properties.[†] Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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July 20, 2005



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700